Transportation Analysis

TA - M317

T.H. 149 from Marie St. to Annapolis

PREPARED BY
THE MINNESOTA DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
PEOPLE AND GOODS MOVEMENT SECTION

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT OF TRANSPORTATION
Room 820

Office Memorandum

TO: Jerry Skelton
Transportation Planner
District 9 - Oakdale

DATE: July 24, 1984

FROM: Allan Pint AP/mt
Traffic Forecasts Engineer
Traffic Forecast Unit

PHONE: 296-0217

SUBJECT: TA-M 317, T.H. 149 from Marie Street to Annapolis

Enclosed are the requested year 2010 Average Weekday Traffic (AWDT) and Peak Hour Volumes on T.H. 149 from Marie Street to Annapolis. Projected traffic volumes for the year 1990 may be obtained by factoring the enclosed year 2010 figures by 0.77.

The analysis for this report included the following materials:

1) 1982 hourly volume counts at the following intersections: Emerson, Delaware and Annapolis (supplied to the Traffic Forecast Unit by District Nine).

2) Historical (1972-1982) ADT counts taken by the Mn/DOT Data Collection Unit along T.H. 149 and several parallel streets (T.H. 52, T.H. 3, Concord, Wabasha and Delaware) at major cross streets.

3) Linear projections of historical counts.

4) Assignments of the year 2000 zonal vehicular interchanges to the network by the Mn/DOT computer model, System 3E Year 2000 Network (4/17/84) and System 3C Year 1980 Network (3/27/84).

5) Screenline volumes taken at the Mississippi River Bridges, Butler Street and T.H. 110.

6) 1984 volume counts taken by Traffic Forecast Unit staff at the following intersections along T.H. 149: Marie, Wentworth, Emerson, Delaware, Dodd and Annapolis.

Year 2000 volume assignments by the Mn/DOT computer model to T.H. 149 from Marie Street to Annapolis were found to be significantly less than 1982 counted volumes (about 55 percent lower at several locations). In addition, screenlines were taken at three locations to determine whether or not corridor volumes in the study area showed greater increases than T.H. 149 volumes for the twenty year time span 1980 to 2000. At each screenline location (Mississippi River Bridges, T.H. 110 and Butler Street) ADT volumes were summed for all intersections from T.H. 149 to Concord Street for both years 1980 (System 3C) and 2000 (System 3E). The increase of the corridor volumes over

this twenty year time period was found to be fairly small (ranging from 15 to 50% at selected locations.

There are several factors which indicate that volumes on T.H. 149 should increase to a somewhat greater extent than projected by the Mn/DOT computer model. Analysis of historical counts showed sizable increases in ADT volumes from 1972 to 1982. A straight line projection of these counts to the year 2000 at the three screenline locations shows increases which range from 13 to 128 percent for the same twenty year time period. Also, a survey of land use in the study area indicated that undeveloped land in the project area could realize new growth in future years.

Traffic counts were taken along T.H. 149 by Forecast Unit staff in order to develop a present day schematic of AWDT volumes along the specified route. 1984 AWDT and turning movements were determined from these figures along with hourly counts provided by District Nine.

The 1984 volumes were expanded to the year 2010 based on analysis of historical trend and comparisons of various Mn/DOT computer model assignments. The completion of T.H. 35E and extention of T.H. 3 between T.H. 494 and T.H. 55 were also significant factors in determining the final year 2010 ADT volumes on T.H. 149. Peak hour volumes are based on two factors: 1) System 3E year 2000 peak hour percentages and 2) a survey of the land use in the study area.

If you need additional information or have any questions about this forecast, please call Caren Grantz at 297-1466.

Attachments

Mn/DOT 29131 (6-78)

SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location T.H. 149 and MARIE ST.

System _____

SPAR TA-M317 Date July 1984

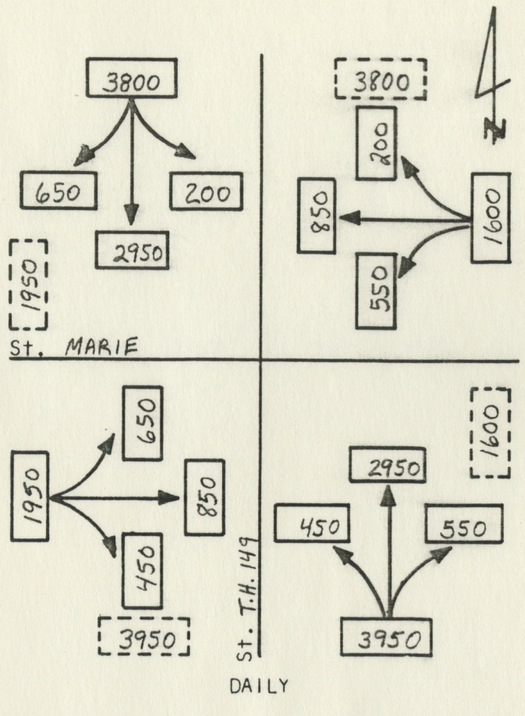
DATA SOURCE:

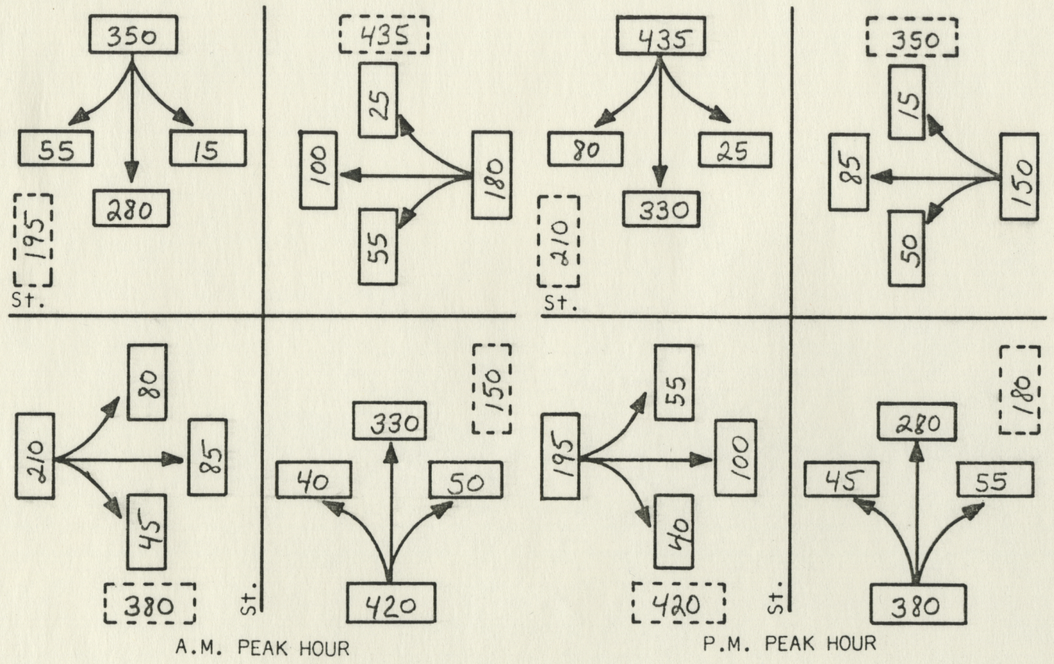
Computer Output ____

Analysis ____

Traffic Count ____

COMMENTS: _____





Mn/DOT 29131 (6-78)

SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location T.H. 149 and WENTWORTH

System _____

SPAR TA-M317 Date July 1984

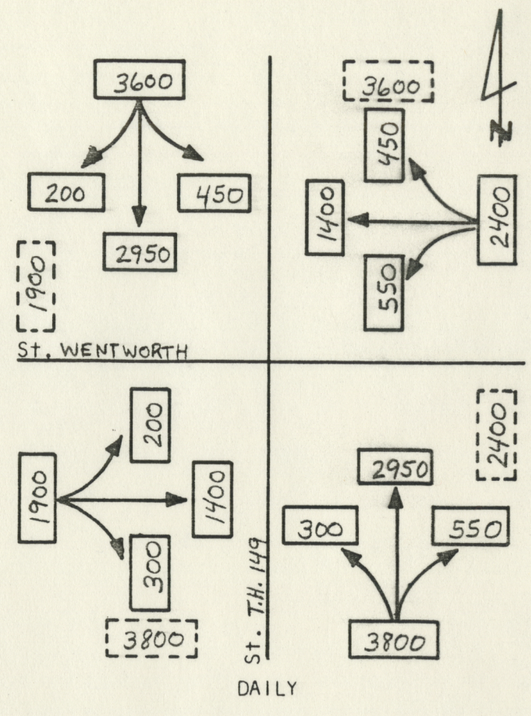
DATA SOURCE:

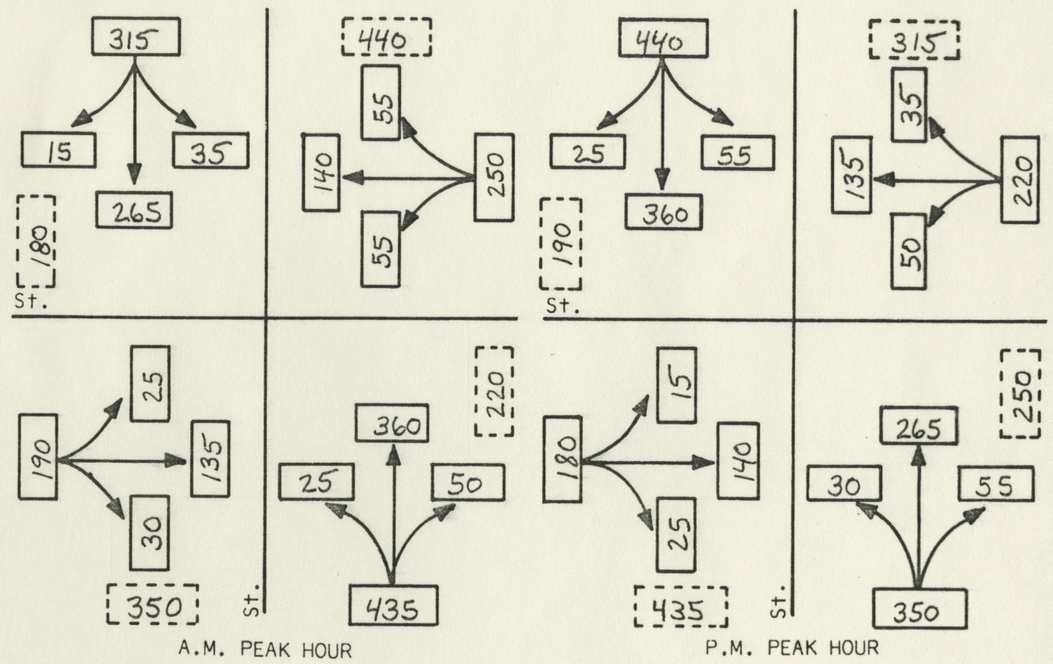
Computer Output ____

Analysis ____

Traffic Count ____

COMMENTS: _____





SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location T.H. 149 and EMERSON

System _____

SPAR TA-M317 Date July 1984

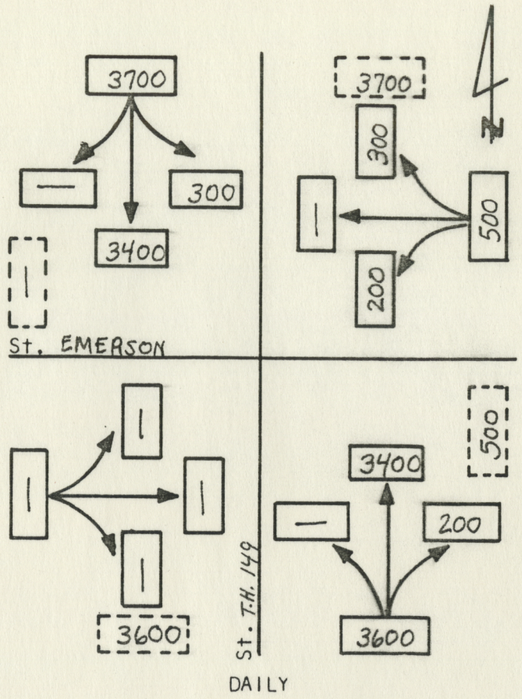
DATA SOURCE:

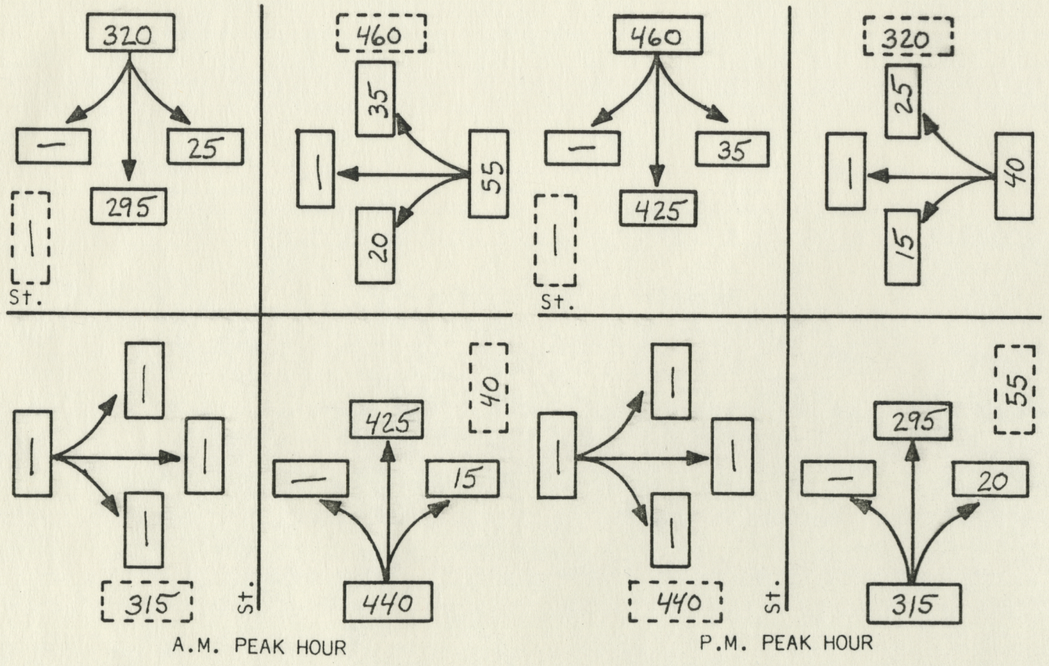
Computer Output ____

Analysis ____

Traffic Count ____

COMMENTS: _____





Mn/DOT 29131 (6-78)

SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location T.H. 149 and Delaware

System _____

SPAR TA-M317 Date July 1984

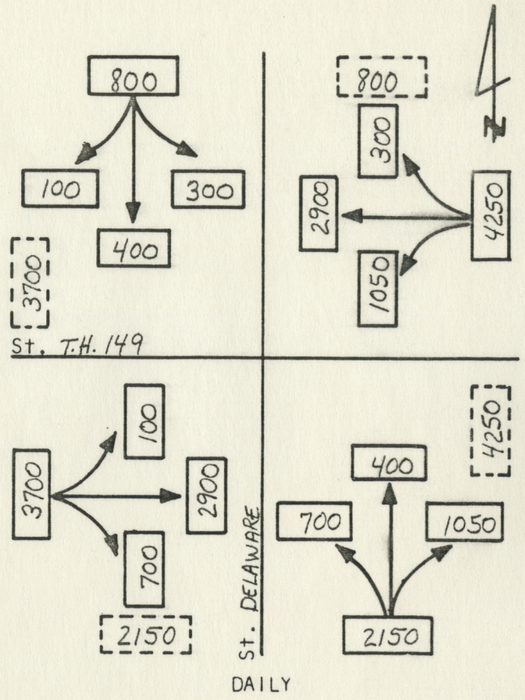
DATA SOURCE:

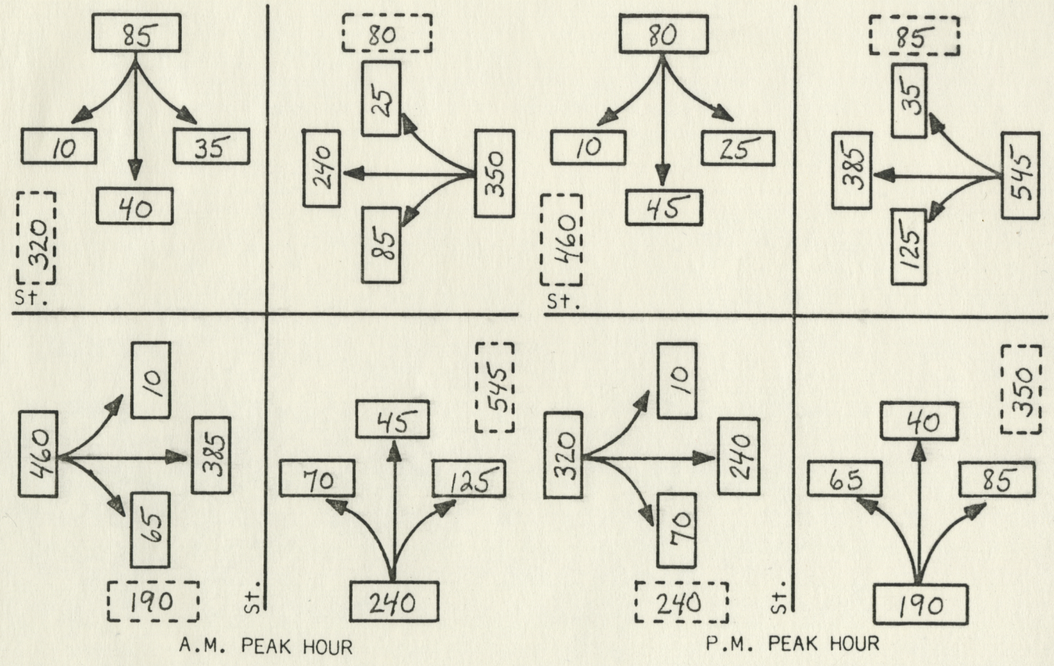
Computer Output ____

Analysis ____

Traffic Count ____

COMMENTS: _____





Mn/DOT 29131 (6-78)

SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location T.H. 149 and Dodd Rd.

System _____

SPAR TA-M317 Date July 1984

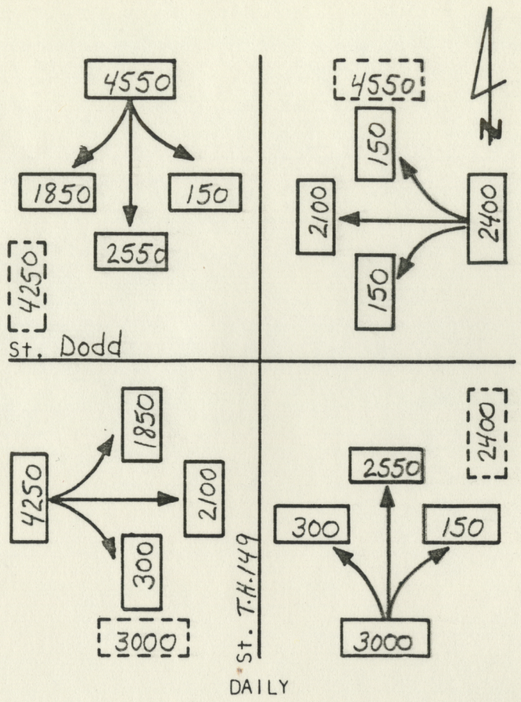
DATA SOURCE:

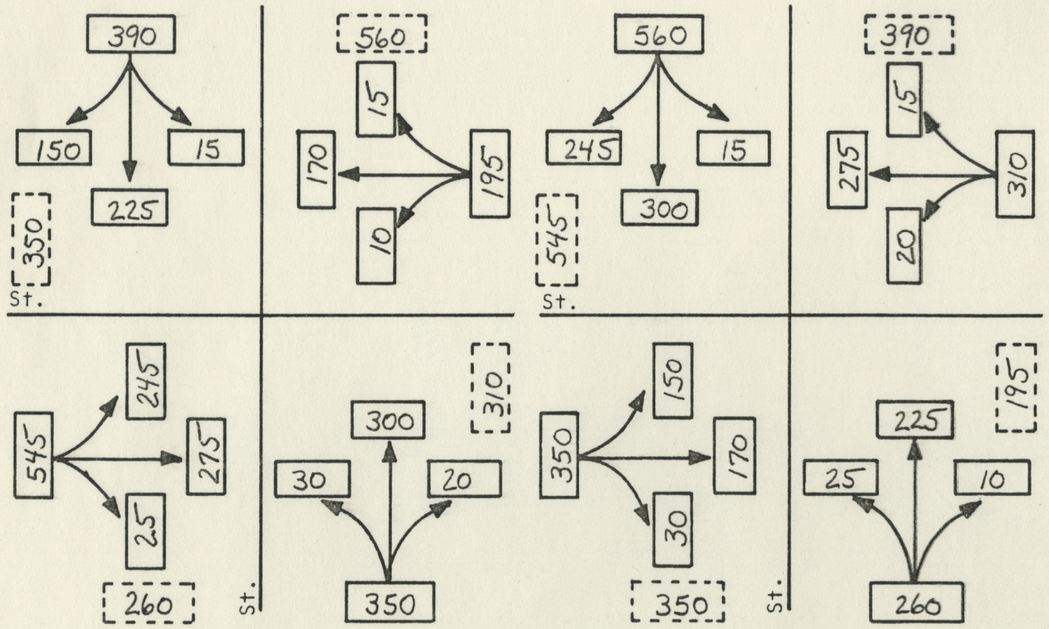
Computer Output ____

Analysis ____

Traffic Count ____

COMMENTS: _____





Mn/DOT 29131 (6-78)

SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location T.H. 149 and ANNAPOLIS

System _____

SPAR TA-M317 Date July 1984

DATA SOURCE:

Computer Output ____

Analysis ____

Traffic Count ____

COMMENTS: _____